

PERMIT MODULE I GENERAL PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The permittee is allowed to dispose solid waste on-site in accordance with the conditions of this permit. Any disposal of solid waste not authorized by this permit is prohibited. Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Sections 10.1-1402(18), 10.1-1402(19), or 10.1-1402(21) of the Virginia Waste Management Act (Chapter 14, Title 10.1, Code of Virginia (1950), as amended); or any other law or regulation for protection of public health or the environment. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. For purposes of this permit, terms used herein shall have the same meaning as those in the Virginia Waste Management Act, and Part I and other pertinent parts of the Virginia Solid Waste Management Regulations (VSWMR, 9VAC20-81), unless this permit specifically provides otherwise; where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by the generally accepted scientific or industrial meaning of the term or a standard dictionary reference. "Director" means the Director of the Department of Environmental Quality, or his designated or authorized representative.

I.B. DUTIES AND REQUIREMENTS

The permittee shall comply with all conditions of this permit and 9VAC20-81. The effect of this permit is detailed in 9VAC20-81-490, and it shall be the duty of the permittee to ensure the applicable requirements are met. Additionally, the permittee is subject to the recording and reporting requirements detailed in 9VAC20-81-530. In addition to these requirements, the following additional conditions are invoked per 9VAC20-81-430, and shall be complied with:

- I.B.1. Noncompliance may be authorized by a schedule of compliance [9VAC20-81-490.D. and 9VAC20-81-490.H.]. Any other permit noncompliance constitutes a violation of Virginia Waste Management Act and is grounds for enforcement action, or for permit revocation, revocation and reissuance, or modification [9VAC20-81-570 and 9VAC20-81-600].
- I.B.2 The permittee shall comply with the requirements of this permit and any provisions of RCRA Subtitle D (Title 40, Code of Federal Regulations, Section 258) requirements as they become applicable upon their effective date. This permit may not act as a shield against compliance with any part of RCRA or any other applicable federal regulation, state regulation or state law.

- I.B.3. In an enforcement action, it shall not be a defense for the permittee that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- I.B.4. In the event of noncompliance with this permit, the permittee shall take all reasonable steps to minimize releases of solid wastes or waste constituents to the environment and shall carry out measures to prevent substantial adverse impacts on human health or the environment.
- I.B.5. The permittee shall at all times properly operate and maintain all units (and related appurtenances) which are installed or used by the permittee to achieve compliance with the operations manual and the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing, and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary equipment only when necessary to achieve compliance with the conditions of this permit.
- I.B.6. The permittee shall furnish to the Director, within a reasonable time, any relevant information that the Director may request to determine compliance with this permit, regulations or the Act. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit by the date specified in the request.
- I.B.7. The permittee shall allow the Director, or an authorized representative, at a reasonable time, upon the presentation of appropriate credentials, to:
 - I.B.7.a. Enter the permitted facility where a regulated unit or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - I.B.7.b. Have access to and copy any records that must be kept under the conditions of this permit;
 - I.B.7.c. Inspect any unit, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
 - I.B.7.d. Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by Virginia Waste Management Act, any substances or parameters at any location within his control.
- I.B.8. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample to be analyzed must be the appropriate method from the latest edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, if available.

Laboratory samples shall be analyzed in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories.

- I.B.9. This permit is not transferable to any person, unless approved by the Director. The Director may require modification or revocation and reissuance of the permit pursuant to 9VAC20-81-490.G. Before transferring ownership or operation of the facility during its operational life, the permittee shall notify the new owner or operator in writing of the requirements of Parts III and V, of the Virginia Solid Waste Management Regulations, the Financial Assurance Regulations, 9VAC20-70, and this permit.
- I.B.10. In accordance with § 10.1-1408.2, all facilities must have a Certified Operator as required by the Board of Waste Management Facility Operators-Licensing Regulations, 18 VAC 155-20.
- I.B.11. Specifications for all drainage media should specify that the material shall contain no greater than 15% calcium carbonate equivalent. Department literature regarding research on leachate collection media indicates that weight loss greater than 15% results in an unacceptable loss of performance. If a greater percentage is specified or allowed, a demonstration that performance is not adversely affected must be provided to the Department for review and approval.
- I.B.12. Recirculation of collected leachate shall not be allowed, in accordance with 9VAC20-81-210.D.3., except when the area to be irrigated is underlain by a composite liner system. Furthermore, in accordance with 9VAC20-81-200.C.3.c., decomposition gas condensate may be recirculated into the landfill provided the facility complies with the composite liner requirement and the leachate control system requirements of Part III of VSWMR. A composite liner system is a system designed to meet the requirements of 9VAC20-81-130.J.1.
- I.B.13. The closure cost estimate must reflect the maximum cost of closure at all times. The owner has the responsibility to maintain the closure and post closure cost estimate and associated financial assurance funding as conditions change.
- I.B.14. Land-clearing, excavation, and construction activities that involve the disturbance of wetlands or streams shall not commence without authorization from the Virginia Water Protection (VWP) Program and/or Army Corps of Engineers.
- I.B.15. The facility shall maintain and follow an approved Erosion & Sediment Control Plan for all land-disturbing activities in accordance with the Erosion and Sediment Control Regulations, 9 VAC 25-840.

I.C. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The permittee shall maintain a complete copy of the Solid Waste Permit and incorporated Permit Documents at the facility, or another location approved by the director, until post-closure is complete and certified by a professional engineer, and shall maintain amendments, revisions, and modification to these documents. In addition, the facility shall maintain the following additional documents:

- I.C.1. Operations Manual with annual certification by Responsible Official
- I.C.2. Detailed, written estimate, in current dollars, of the cost of closing the facility, post-closure care and corrective action measures
- I.C.3. All other documents/records required and applicable from the following:
 - I.C.3.a. Monitoring records from leachate, gas, and groundwater monitoring.
 - I.C.3.b. Inspection records as required from construction/installation, operational, closure, post-closure inspection requirements.
 - I.C.3.c. Personnel training records
 - I.C.3.d. Daily operational records (i.e., solid waste received and processed, fill area records, records of special wastes accepted, a logbook which is a daily narrative account of the activities at the landfill).
 - I.C.3.e. Construction quality assurance reports, record drawings and engineers certifications for all new liner and/or final cover construction
- I.C.4. An approved copy of the complete Part A permit application
- I.C.5. Documentation of the authorization to discharge leachate into the publicly/private owned treatment works, leachate volumes sent to the POTW, and periodic leachate sampling analytical results
- I.C.6. Research, Development, and Demonstration Plan documentation and testing data, if applicable.

I.D. DOCUMENTS TO BE SUBMITTED

In addition to the documents/records/reports to be submitted per the requirements of this permit or 9VAC20-81, the permittee shall also submit the following documents to the Director according to indicated schedules:

- I.D.1. Prior to expansion into each new phase, the permittee shall submit all required certification documents per 9VAC20-81-490.A., and:

- I.D.1.a. Authorization from the City of Hopewell WWTP, South Hill WWTP, and Atlantic Waste Disposal, Inc. WWTP at SWP562 to discharge the increased volume of leachate and wastewater to the sewerage system and treatment works.
- I.D.1.b. Report and supporting documents resulting from quality control/quality assurance activities performed during construction and installation of the liner/drainage systems, including the installation contractor's written acceptance of the surfaces to be lined, synthetic liner manufacturer and installer warranties, laboratory test results of the permeability of the clay liner and the drainage media overlying the liner, and representative copies (sufficient to demonstrate responsible control) of the accumulated inspection schedules resulting from the professional engineer's oversight of the construction.
- I.D.2. In accordance with 9VAC20-81-490.A., certification from a design engineer, who must be a professional engineer licensed to practice in the Commonwealth, that the construction of the facility has been completed in accordance with the permit, approved plans and specifications and is ready to begin operation. A certification will be required for each lined phase of development.
- I.D.3. Certification (separate from I.D.2, above) from the Construction Quality Assurance (CQA) officer that the approved CQA plan has been successfully carried out and that the constructed unit meets all requirements of the permitted CQA plan, in accordance with 9VAC20-81-130.Q. A certification will be required for each lined phase of development. The CQA officer must be a professional engineer licensed to practice in Virginia.
- I.D.4. The as-built plans of all groundwater and gas monitoring wells shall be submitted as these wells are installed or modified. Information to be included on the as-built plans shall include, but is not limited to, the total depth of the well, the surveyed elevations of the top of casing and ground surface (or apron), and the length and location of the screened interval and annular space seal. All dimensions are to be shown on well construction schematics.
- I.E. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DIRECTOR

All reports, notifications, or other submissions which are required by this permit to be sent or given to the Director should be sent to:

Virginia Department of Environmental Quality
Division of Land Protection & Revitalization
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

I.F. SITE SPECIFIC CONDITIONS

The provisions of this section are in addition to the permit conditions and regulatory requirements and are specifically developed for this facility. The permittee shall comply with all conditions of this section, as follows:

- I.F.1. The final permit is based on permit application submittals (drawings and reports) that may contain the word “proposed” and similarly tentative language. The documents that are incorporated into Permit No. 572 have been evaluated for administrative and technical adequacy and have been approved as proposed. Therefore, any references to a design, construction, operation, monitoring or closure criteria are considered to be approved as proposed.
- I.F.2. The facility is subject to the conditions listed in the Part A approval letter dated February 18, 1994.
- I.F.3. The permittee shall perform a topographic survey of all active portions of the landfill units on an annual basis (at least every 12 months) unless otherwise requested by the Director. The survey shall be certified by a professional engineer or certified land surveyor licensed in the Commonwealth of Virginia, unless exempt pursuant to § 54.1-402. The survey results shall be compared to the landfill permit’s final site topography plan. Within 90 days of the survey, the permittee shall submit to the DEQ Piedmont Regional Office Waste Program a drawing comparing surveyed elevations, permitted final elevations, and the disposal unit boundary. The drawing shall note areas that have reached final elevation or lateral extent, and any areas of overfill (waste outside the constructed disposal unit boundary or above the vertical design capacity) including an estimate of total area and volume of overfill. The remaining capacity and estimated life within the permitted disposal unit boundary shall also be included as part of the submittal. Areas that have attained final elevations and slopes must be stabilized in accordance with the permit until final cover is applied within the timeframe specified in the Closure Plan. Except as may be separately permitted or approved in writing by DEQ for exigent or emergency situations, no waste shall be placed outside of the disposal unit boundary and in areas where the elevation exceeds the vertical design capacity that can be derived from Drawing No. 20, Final Grading Plan Area A, 1 of 2, Drawing 21, Final Grading Plan Area A, 2 of 2, and Drawing 24, Final Grading Plan Area B, dated August 31, 2021, respectively.

I.G. PERMIT MODIFICATIONS

- I.G.1. The permit was modified by a minor modification on June 1, 1995, approving the use of Posi-Shell as Alternate Daily Cover (ADC).
- I.G.2. The permit was modified by a minor modification on November 5, 1996, approving a field revision of the alignment of the toe of the embankment for the access road

at Cell 3A, initiated to prevent intrusion into a wetlands area.

- I.G.3. The permit was modified by a minor modification on December 5, 1997, involving approving handling procedures of drums in the Operations Plan; modifying the leachate storage tanks to consist of one-11,000 gallon tank, one-20,000 gallon tank, and one-250,000 gallon tank; revising groundwater sampling protocol; including 40-mil geosynthetic as an optional component of the composite final cover system; and revising the Quality Assurance Plan to include drive cylinder field density and microwave oven moisture content tests, the use of 50/50 mixture of granular bentonite and sand to backfill test pits, and specifying the testing requirements for the 40-mil geomembrane material for final cover.
- I.G.4. The permit was modified by a minor modification on March 16, 2000, approving construction of a migration barrier between cells for gas/odor control, and allowing management of unshredded, treated medical waste by trench burial.
- I.G.5. The permit was modified by a minor modification on December 17, 2003, approving an additional line from the leachate storage tank to Cell 7 for leachate recirculation.
- I.G.6. The permit was modified by a minor modification on May 21, 2010, involving updating CQA Specifications methods and frequencies for geomembrane liners and geotextile fabrics.
- I.G.7. The permit was modified by a minor modification on October 31, 2013, approving a revised Groundwater Monitoring Plan, which replaced monitoring well MW-04D with MW-04DR.
- I.G.8. The permit was modified by a minor modification on April 16, 2015, which involved eliminating benches in selected areas and replacing with tack on berms and conveyance channels.
- I.G.9. The permit was modified by a minor modification on February 11, 2016, approving the use of an interim geomembrane cover to reduce stormwater infiltration, leachate production, and minimize soil erosion from soils on the west side of the landfill.
- I.G.10. The permit was modified by a minor modification on February 16, 2016, approving the use of DuraScrim rain cover over approximately 8.11 acres placed in two approximate 4-acre phases.
- I.G.11. The permit was modified by a major modification on July 5, 2017, approving a pre-approved alternate liner, and four alternate cover systems.
- I.G.12. The permit was modified by a minor modification on February 26, 2018, which approved a revised CQA Plan and Technical Specifications. These changes involved clarification of the maximum permeability of the GCL in the pre-approved

alternate liner final cover system, and the asperity height for the top of the 50-mil textured LLDPE geomembrane in the alternate final cover system.

- I.G.13. The permit was modified by a minor modification on September 12, 2019, approving the use of TOPCOAT as an ADC.
- I.G.14. The permit was modified by a minor modification on June 15, 2020, approving the use of GCL with a woven geotextile bottom.
- I.G.15. The permit was modified by a minor modification on April 5, 2021, approving the use of VERDac pellets as an ADC.
- I.G.16. This major permit modification involves increasing the daily disposal limit from 2,000 tons per day to 4,000 tons per day, renaming the facility's sedimentation basins, and approving a revised Gas Management Plan/Gas Remediation Plan.